

REMARKS

Claims 1-11 are pending in the present application. Claims 1-11 were rejected under 35 U.S.C. §103(a). Applicant has added new claims 12-16.

Claims 1-7 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,816,226 (Bouten) in view of U.S. Patent No. 4,390,245 (Shimizu, et al.).

Claims 8-11 were rejected under 35 U.S.C. §103(a) as being obvious over Bouten in view of Shimizu and further in view of U.S. Patent Application Publication No. 2003/0147038 (Lee, et al.).

Applicant urges that the Examiner has failed to make out a *prima facie* case of obviousness for these rejections. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the combination of prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

For the reasons presented below, Applicant urges, at the very least, that there is no motivation to combine the teachings of Bouten and Shimizu, and that the combination of Bouten and Shimizu fails to disclose or suggest *a plurality of spacers formed on the insulating substrate and contacting the insulating substrate to support the insulating substrate, wherein contact area of the spacers contacting the substrate becomes large as the spacers are located closer to a center of the display area*, as recited in claim 1, or *a plurality of spacers formed between the substrates and contacting the substrates with different contact areas to support the substrates*, as recited in claim 5.

The Examiner cited Bouten as disclosing a display device that can be used with a liquid crystal display that includes at least one substrate with a display area and a sealant. The Examiner concedes that Bouten does not disclose *a plurality of spacers . . . contacting the substrates with different contact areas to support the substrates, . . . wherein contact area of the spacers contacting the substrate becomes large as the spacers are located closer to a center of the display area*, as essentially recited in claims 1 and 5, but then cites Shimizu as disclosing this limitation.

Applicant respectfully disagrees with this interpretation of Shimizu.

Shimizu is directed to an optical display cell that uses an adhesive and adhesive-free spacers to maintain even thickness. The section of Shimizu cited by the Examiner discloses spacers (4) dispersed within a liquid crystal material to maintain a uniform distance between the substrates, and an adhesive (5) for adhering the substrates positioned at the approximate center of the substrate. Applicant urges that the Examiner is apparently confusing the adhesive with the spacers, as the adhesive comprises particles that are larger in size than the spacers. However, the adhesives are not spacers and cannot contribute to maintaining the spacing between the substrates, and Shimizu discloses that the adhesives are intended to be pressed, as indicated by the general shapes of objects in FIGS. 1 and 2. Col. 2, lines 53-62, refers to a flattening of a curved substrate to a separation maintained by the spacers, shown in FIGS. 1 to 2, along with a flattening of the adhesive particle. In addition, Shimizu discloses the spacers as being particles with a diameter of about 6 μm , thus there is no disclosure or suggestion in Shimizu of spacers of differing contact area, as essentially recited in claims 1 and 5. Furthermore, given that the spacers and adhesive perform differing functions for Shimizu's display cell, there would be no motivation to combine the teachings of Shimizu with those of Bouten, and this combination would simply introduce adhesive particles into the center of Bouten's display substrate, not spacers with an increased contact area.

Thus, Applicant urges that since there is no motivation to combine the teachings of Bouten and Shimizu, and that the combination fails to disclose or suggest all limitations of claims 1 and 5, these claims are not obvious over Bouten and Shimizu.

Reconsideration and withdrawal of these section 103 rejections are respectfully requested.

Claims 2-4 and 6-7 depend from claims 1 and 5, respectively, and are thus patentable for at least the same reasons as claims 1 and 5. Reconsideration and withdrawal of this rejection are respectfully requested.

Regarding claim 8, the Examiner acknowledged that Bouten and Shimizu do not disclose *combining the substrates under a vacuum atmosphere*, but cites Lee as disclosing this limitation. However, at the very least, for the reasons presented above in connection with independent claims 1 and 5, Bouten and Shimizu do not disclose or suggest *forming a plurality of spacers on one of two substrates . . . and contacting the substrate with different contact areas to supporting the substrate*, as recited in claim 8, and Lee does not rectify this deficiency. Since the combination of Bouten, Shimizu, and Lee fails to disclose or suggest all claimed limitations of claim 8, a *prima facie* case of obviousness of claim 8 over Bouten, Shimizu, and Lee cannot be maintained. Reconsideration and withdrawal of this section 103 rejection are respectfully requested.

Claims 9-11 depend from claim 8, and are thus patentable for at least the same reasons as claim 8. Reconsideration and withdrawal of these rejections are respectfully requested.

Applicant urges that new claims 12-16 are also patentable for at least the same reasons as independent claims 1, 5, and 8.

CONCLUSION

Applicant urges that claims 1-11 are in condition for allowance for at least the reasons stated. Early and favorable action on this case is respectfully requested.

Respectfully submitted,

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